

LONDON 2005





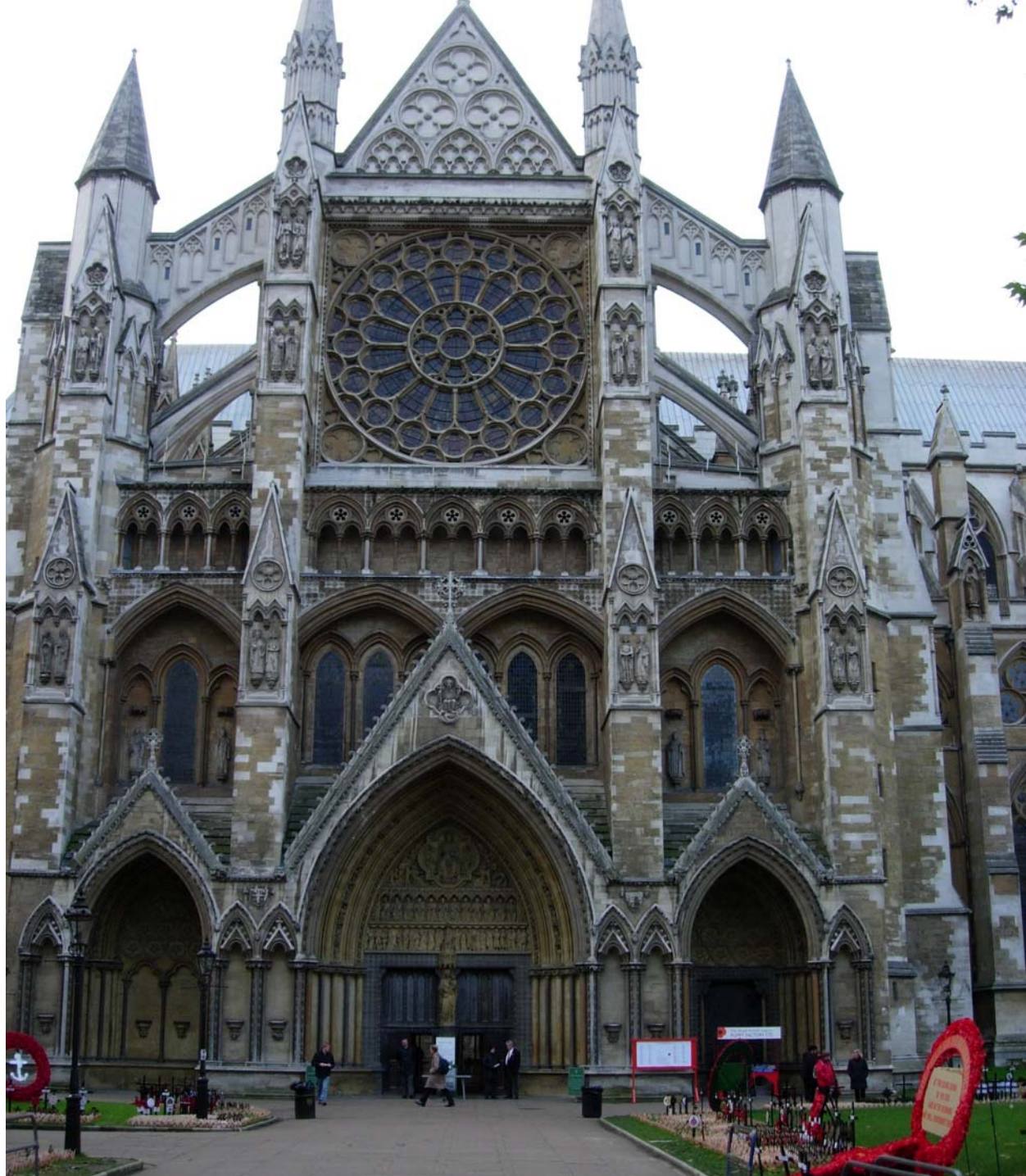
















THE FIELD OF REMEMBRANCE

AT THE GOING DOWN
OF THE SUN
AND IN THE MORNING
WE WILL REMEMBER THEM

IN MEMORY OF THE SAILORS
THE SUFFRAGE SAILORS

IN MEMORY OF THE SAILORS
MALAYA

IN MEMORY OF THE SAILORS
THE GALELANDS



13 8:35PM















13.11.2005 17:09



The London Underground, British Transport Police have a different approach to suspicious packages:

They utilize a “H.O.T.” system to train their employees and the public in how to discern whether an item is lost property or suspicious. Information contained in their employee training and handouts to the riding public includes:

Suspicious Items tend to be:

H – Hidden

O – Obviously Suspicious

T – Typically not what is regularly encountered

When something is found consider the “HOT” characteristics

If you are not suspicious, examine the item further

If you are unsure, move people away.

Initiate the evacuation procedure.

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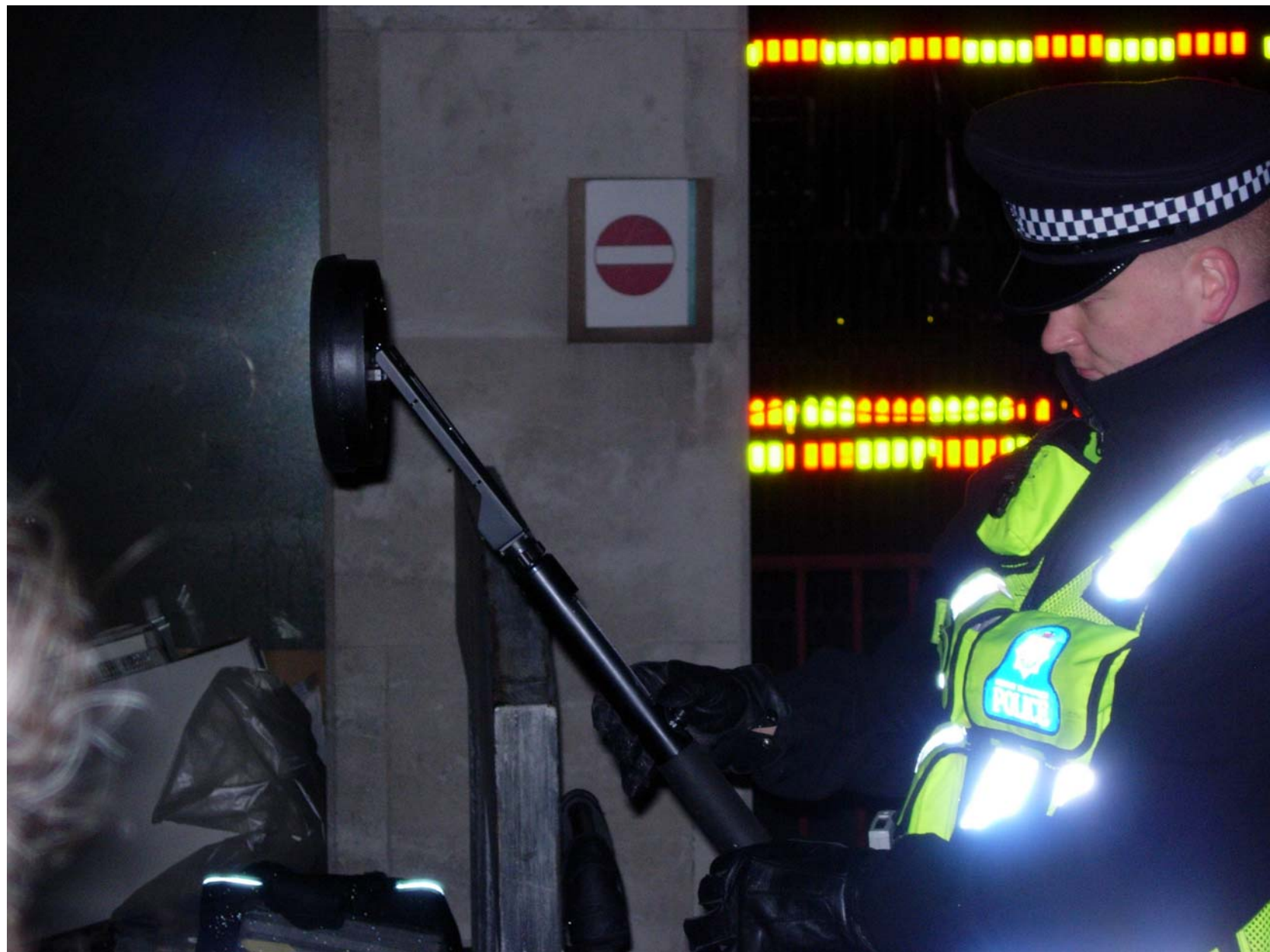
*** In 1992 they had over 2000 unattended items that were declared as suspicious based on 'gut feeling'. By appropriate use of "HOT" there were only 270 in 2003.

When something is declared as suspicious, they utilize an "Alpha" team to respond and evaluate the item. This Alpha team is organized, trained and equipped to check packages for electrical impulses, chemical makeup and x-ray.

This allows them to keep rail service interruptions to less than 20 minutes for an item deemed as suspicious.

If the Alpha team identifies a bomb, then they call in there bomb squad.









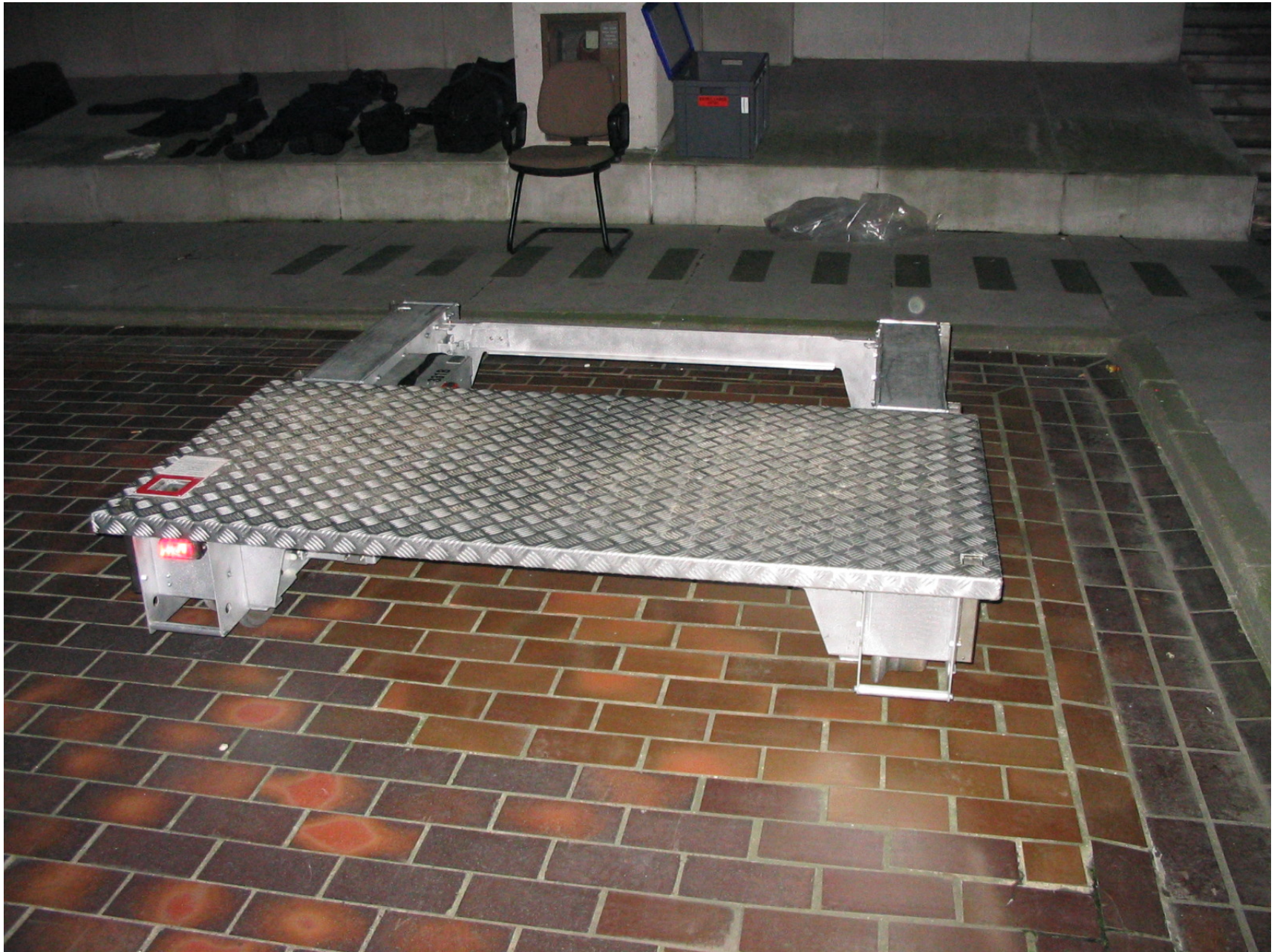














BANCE

GLW 1000kg

MRT 09









UPT

What is UITP

- The International Association of Public Transport (UITP) is the worldwide **network** of public transport professionals.
- UITP represents over 2700 urban, local, regional and national mobility actors from more than 80 countries on all continents.
- UITP unites the entire supply chain of public transport players, such as:
 - operating companies
 - local, regional and national authorities
 - the service and supply industry
 - research institutes, academics and consultants.
- UITP covers all modes of public transport - metro, bus, light rail, regional and suburban railways, and waterborne transport. UITP acts as the **point of reference** and a centre of best practices for the public transport sector.
- UITP gathers and monitors public transport statistics and mobility indicators, and acts as knowledge hub on past and current developments and future trends

First Day of the UITP Conference The key points:

- The need to reduce the risk of terrorist activity
- The need to get the transportation system back to normal business as quick as possible
- The BTP use a layered approach to security:
 - They do random patrols with a special police unit that go throughout the underground system.
 - Use 6,000 cameras just in the underground, if you go into a station they have your picture!

Peter Tollington general manager of the Circle and Hammersmith Line of the London Underground, gave an overview of the recent terrorist attacks on the Underground.

He relayed that it is believed that the terrorists targeted only trains, with buses becoming secondary targets, because the trains did not arrive as expected (mechanical problems).

All of the targeted trains were attacked while they were in tunnels, not while they were in the stations. The reason for this is unknown, but consideration should be given to the possibility that the terrorists desired a lengthy and difficult rescue, investigation, and recovery efforts. This would maximize their disruption of the system and increase the economic impact.

Mike Weston, Operations Director of surface transport for Transport for London did an overview of the London bus system and the bus incident.

Transport for London has 8,000 buses with over 700 different routes.

Each bus has a radio that links it to the 24-hour operations center where British Transport Police maintain a presence.

The radio system remained intact during the terrorist attacks, but response was delayed as reports of the incident were delayed due to landline and cell system failure.

Daniel Plesch, Research Associate in the Centre for International Studies and Diplomacy,
University of London

Economic, Communal, Political impact is deliberate and strategic in nature

World news and Internet enable a high global profile which relays information in a virtual network for sporadic local attacks

The attackers think about a single global space while we work in small national and regional compartments and fragmented countries.

Complacency leads to disaster

Al Qaeda is like a professional sports team, a few professionals (players), many who dream of playing (fans), and others who don't have to be told when to cheer (tacit support).

Theoretical objectives of terrorism:

- Cause casualties and fear

- Obtain a global profile

- Demonstrate an ability to attack the western base

- Demonstrate support within the west

- Cause strategic economic damage

- Incite repression to radicalize/polarize the population\

- Make it harder to send expeditions abroad

Zyg Kowalczyk, Director, London Resilience, United Kingdom

OSIRIS exercise – London preparedness and response

OSIRIS I was a tabletop exercise only.

OSIRIS II was a live CBRN (Chemical, Biological, Radiological, Nuclear) attack on London Underground.

It was the single largest deployment of London Fire Brigade assets under exercise conditions (simulated nerve gas attack in the tube, 500 meters from a station)
Involved 55 apparatus, 120 firefighters, 60 “casualties (20 non-ambulatory, 40 ambulatory)

Decontaminated, treated and transported. 20 additional casualties showed up at area hospitals

Reinforced the need for advanced planning, preparation, and multi-agency training















LONDON FIRE BRIGADE

making London a safer city

The **London Fire Brigade (LFB)** provides fire fighting and rescue services in London, UK. It is the third largest fire department in the world with nearly 7000 staff. London Fire Brigade staffs 170 appliances (Engines), 10 squads, 16 ladder trucks
Want to add 6 more squads in the near future.

In 2004 they answered nearly 300,000 emergency calls, responded to 60,000 fires and over 5000 traffic accidents. As well as traditional fire fighting, the LFB respond to Hazardous material incidents, conduct emergency planning and perform fire safety inspections and education.

Operate on 3 total radio channels, one for each division in the city –Use separate “handie-talkies” on scene.

It does not provide EMS, this being performed by the London Ambulance Service.

The headquarters are in Lambeth, on the Albert Embankment, next to the River Thames, and close to Lambeth Bridge.

Since 2000 the brigade has been administered by the Greater London Authority through the London Fire and Emergency Planning Authority (LFEPA).







FLOODLIGHTING OPERATION

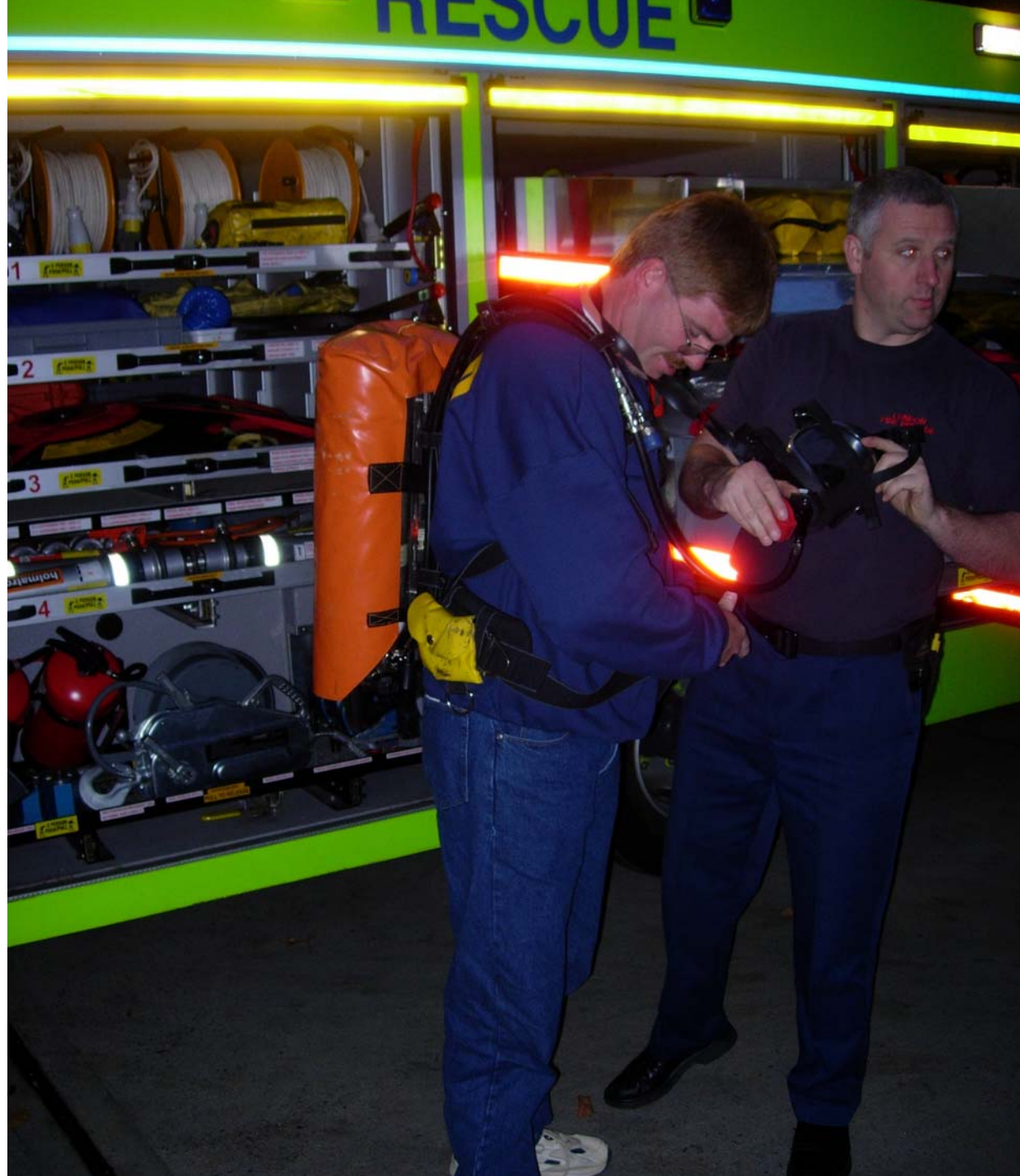
1. Start generator
2. Turn on floodlight
3. Turn on pump
4. Turn on water valve
5. Turn on pump
6. Turn on pump
7. Turn on pump
8. Turn on pump
9. Turn on pump
10. Turn on pump
11. Turn on pump
12. Turn on pump
13. Turn on pump
14. Turn on pump
15. Turn on pump
16. Turn on pump
17. Turn on pump
18. Turn on pump
19. Turn on pump
20. Turn on pump

FOAM SYSTEM OPERATION

1. Engage pump control valve
2. Turn on pump
3. Turn on water valve
4. Turn on pump
5. Turn on pump
6. Turn on pump
7. Turn on pump
8. Turn on pump
9. Turn on pump
10. Turn on pump
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LFB

- Met with Special Operations Group
- Inter Agency Liaison Officers – Tactical Advisors WMD Terrorism Events

LFB

- LFB not prepared for our group
- Large number of questions on a myriad of operational aspects – short 2 hour visit.

LFB

- Command Structure – Major Incidents
- Gold – Senior Agency Official -Strategic
- Silver – Incident Commander -Tactical
- Bronze – Division/Group Supervisor- Ops
- Gold and Silver Coordinating Groups
- Gold – EOC
- Silver – On Scene



London Ambulance Service

The LAS has 70 ambulance stations covering 620 square miles. These house ALS, BLS, and new Urgent Care units. They do not routinely communicate with the LFB.

Figures released show that just over 1.1 million emergency calls were handled in the Emergency Medical Dispatch (999) control room in Waterloo during the 2004/05 financial year and that the Service responded to a total of 827,200 incidents, up from 768,500 in 2003/04.

These included:

23,270 calls reported to be alcohol-related (a rise of 17 per cent on the previous year)

40,700 assaults (up three per cent)

2,300 patients with stab or gunshot wounds (up three per cent)

41,000 patients with chest pains (up two per cent)

28,700 road traffic collisions (down four per cent)

The 2004/05 total included 207,000 Category A incidents (the most serious calls), more than 76 per cent of which were reached within eight minutes. The national standard is to reach 75 per cent of calls within this target time.

In all, more than 500,000 patients were taken to A&E departments across London, with St Thomas's receiving the most (29,300).

LAS crews attend over 8,000 cardiac arrests each year - of which approximately half are of presumed cardiac cause (where the heart has 'gone wrong'). 6.4% overall survival rate to hospital discharge for pre-hospital cardiac arrest victims in London. 1 in 3 bystanders in London perform CPR.

The LAS is becoming adept at using the media to combat problems such as nuisance calls like:

- A lady who wanted an ambulance for her husband because he doesn't listen to her.
- A female whose friend had turned up at her house drunk and wanting an ambulance to take her home as there were no cabs.
- A man who called from a mobile phone to check his number.
- A man who wanted to know where an ambulance had picked him up from earlier in the day as he had been drunk and couldn't remember.

ONLY ONE OF THESE IS A TAXI SERVICE



Need medical advice or treatment?

Talk to a pharmacist
Call NHS Direct (0800 468 8888)
Check your...

- GP surgery
- local walk-in centre

Or... if it's urgent, consider
going to a hospital A&E
Department using a red flag

Is a medical emergency?

Stay calm... dial 999
Describe your exact location
to the dispatcher...

- something?
- something?
- something seriously?
- having a heart attack?

Get someone to sign where
the ambulance crew is needed.

www.nhs.uk

111 999

This media connection proved invaluable during the 7/7 emergencies as the following excerpt from a press release from the LAS shows;

Due to current levels of demand, we will, until further notice, only be sending ambulances to patients across the capital with life-threatening illnesses or injuries. As an example, this is people who have difficulty in breathing or persistent chest pains; those who have stopped breathing; or who have received traumatic injuries. This will enable us to focus on treating the large numbers of casualties at the scene.

We would urge callers with minor injuries or illnesses to think about using other healthcare options, for example visit their local pharmacist or walk-in centre, or call NHS Direct for advice. If people need to go to hospital, they should use other modes of transport – call a taxi or get a lift with a friend or family member.

The image shows the iconic London Underground roundel logo. It consists of a thick red circle with a white horizontal bar across its center. Inside the white bar, the word "UNDERGROUND" is written in a bold, white, sans-serif typeface. The entire logo is set against a light grey, textured background.

UNDERGROUND

(LONDON UNDERGROUND)

The **London Underground** is a metro system that covers the Greater London area and beyond. It is usually referred to by Londoners as either simply "**the Underground**" or, more familiarly, "**the Tube**".

It is the oldest and biggest such underground system in the world. Operations began on 10 January 1863 on the Metropolitan Railway; most of the initial route is now part of the Hammersmith & City Line.

The Underground currently serves 274 stations and runs over 253 miles (408 km) in 12 Tube lines. In 2004–2005, total passenger rides or journeys reached a record level of 976,000,000, an average of 2,670,000 per day.

Since 2003, the Underground has been part of Transport for London (TfL), which also schedules and leases contracts for London's buses, including the famous red double-decker buses. Previously, London Regional Transport was the holding company for London Underground.



- The Underground experiences breakdowns, on average, every sixteen minutes.
- The longest distance between 2 stations is 3.89 miles. The shortest distance between 2 stations is .16 miles.
- 45% of the system is in a tunnel.
- Trains are not air-conditioned. In the summer it can be very hot. It is not unusual to have simultaneous, multiple, unconscious people. Patrons are encouraged to carry water.
- Suicides are common, at roughly one successful attempt per week across the network, though it is estimated that there are three attempts for each fatality. To help prevent death, most deep tube stations have pits between the tracks at platforms; known as a 'suicide pit', their purpose is to let a body fall safely under the tracks and away from the path of an oncoming train.
- Alcohol causes the most accidents on the Tube.
- Because of different social concerns at the time, accessibility by people with mobility problems was not widely considered important when the system was built; some older stations continue to be inaccessible to such persons.























Events of 7/7

London was used to IRA bombings of the 1970's and 1980's

-They would announce the bombings in advance, looking for financial damage, not human

July 7th changed everything as there were no warnings, multiple attacks, and it involved a large loss of human life (52 dead, 700+ injured)

On July 7th, three subway trains were hit simultaneously at approximately 8:50am.

- Aldgate near Liverpool Street (7 dead)

- Edgware Road near Paddington (6 dead)

- King's Cross near Russell Square (26 dead)

The first explosion cut power lines and was thought to be a power surge that caused explosions in power circuits.

The second explosion was thought to be a train collision or derailment.

NO reports of a bomb.

Within 15 minutes, they concluded that the three incidents were related. It was originally thought that there were five explosions on the Underground because two blasts occurred on trains that were between stations, causing the wounded to come out of both stations.

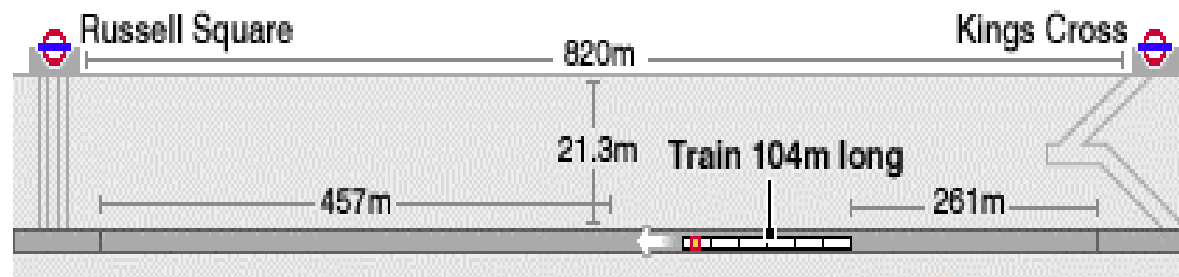
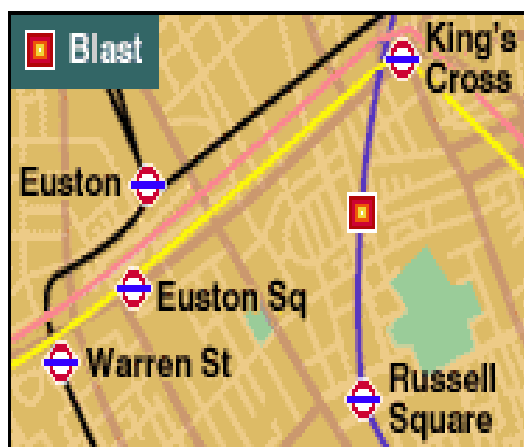
A "Code Amber" was called which caused the total evacuation of the subway system. 500 trains were cleared in 60 minutes. This was only the second time this was declared in the 142 year history of the system.

No derailments or damage to "The Tubes"

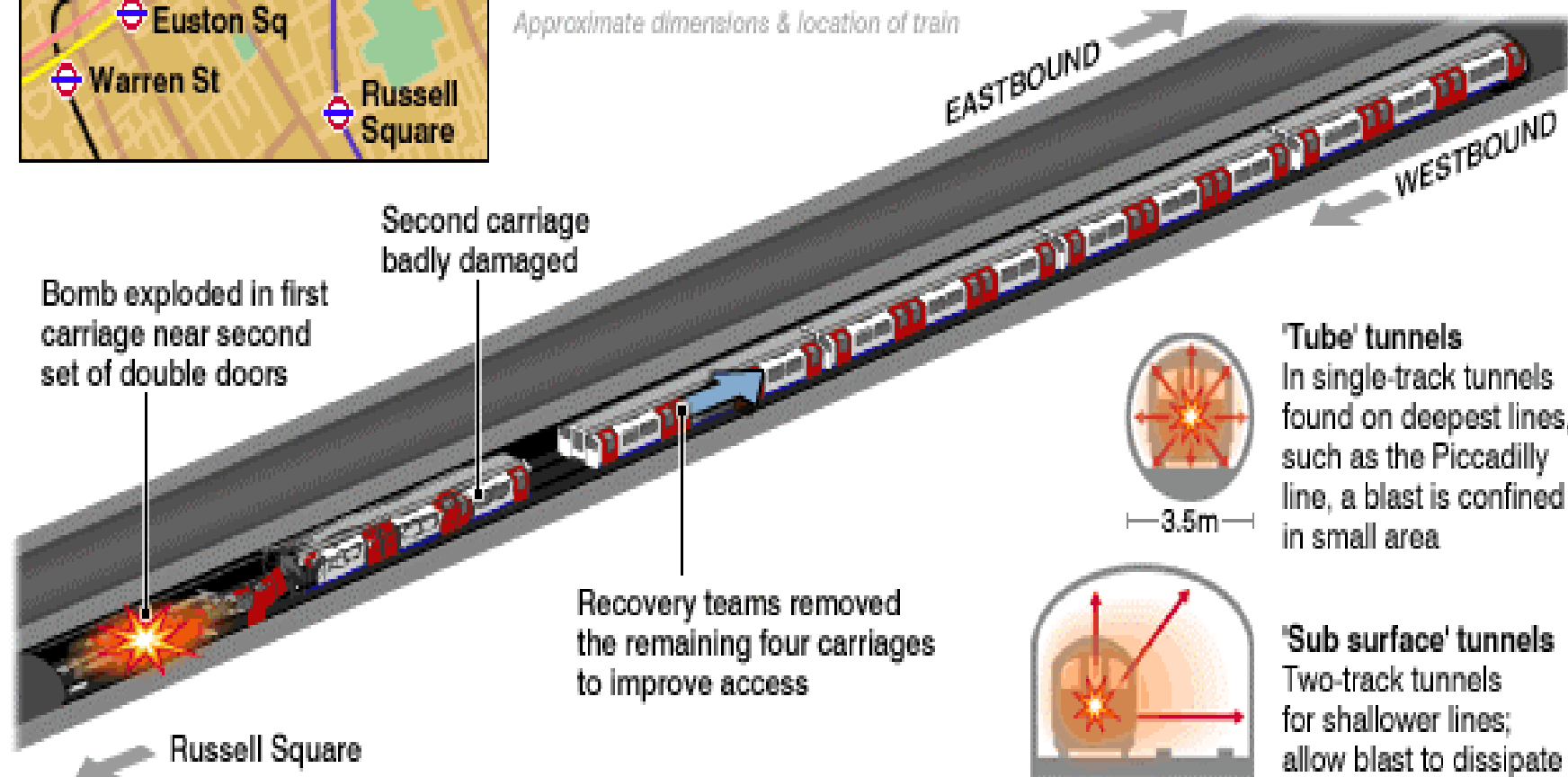




(AP PHOTO)



Approximate dimensions & location of train







Immediate impacts:

- Rescue

- Communications overloaded (could not make calls on cell phones, conventional telephones, or the FD radio system)

- Incident Teams formed

- Care and welfare issues (how to get everyone in the city home)

- Site assessments

- Scenes of crimes had to be cordoned off

Short-term impacts:

- Support to victims, bereaved, staff involved (counseling team)

- Customer and staff confidence

- Specialist police on site

- Media presence

Recovery issues:

- Health and Safety of workers

- Vermin

- Asbestos

- Carbon Monoxide

- Atmospheric monitoring

- Heat

- Infections

A fourth bomb exploded on a double-decker bus in Tavistock Square at 0947 hours. (15 dead)









London's Best Practices / Lessons Learned / Incorporating into Our Region Response

-While there were only four incidents unfolding at once; the LFB response indicated that they were responding to 7 different incidents. As three of the incidents occurred underground within the tunnel system; ambulatory victims and survivors were appearing from two different stations (sides) of the bombing. With these reports coming from each station, the LFB was dispatching multiple units to each station where the reports were coming from. They were not set up or equipped to send units to either side of an incident within a tunnel.

-The LFB utilizes an antiquated UHF radio system with only 3 channels available for the entire city. The city is then separated into three geographic areas. Since all of the bombings happened within one geographic area; all radio traffic for all incidents were on one frequency. Speaking to many of the first responders, they were quick to point out how confusing all of the radio traffic was and how long it took to request / dispatch units to some of the locations. In point, after the bus bomb went off and was reported, it took almost 50 minutes for the first piece of fire apparatus to arrive on the scene with a fire station 100 yards away.

-Communications within the tunnel did not exist after the bombing. As with our system, the Underground is equipped with a *RF Leaky Cable* that was taken out during the blast. This forced all of the responding agencies to utilize *runners* to relay information above the surface. While we have assumed this would happen in our system, it reemphasizes the need to find alternative means of communications.

- It is recommended that the National Capital Region (NCR) anticipate the total reliance on Public Safety Radio systems during major incidents. A Communications Unit with technically competent leadership should be established early and communications plans should include the use of radios by line and staff positions.
- Communication assets should be called for early as there may be significant reflex times as equipment is transported to the scene.
- It is imperative that personnel assigned to the Communications Unit understand the capabilities, procedures, and appropriate use of resources in the NCR.
- Most of the NCR Radio systems have the capacity to handle large events with the use of one or more systems.
- Communications staff must be adequately trained in the use of assigned equipment, and plans must be in place for simultaneous response to multiple simultaneous attacks.

-Responders (Police & Fire) basic training were able to quickly rule out any type of WMD / Chemical attack through a common sense approach. With multiple casualties emanating from the tunnels and train platforms and lots of people running with injuries resulting from a blast; no unusual signs of unconscious persons, respiratory injuries etc, it was unlikely of anything but a conventional bomb. This was followed up with rapid atmospheric monitoring by the BTP just in case.

-The British Transit Police (BTP) and the LFB have designed and purchased specialized equipment for a response in the tunnels. Such as larger motorized ETEC type carts for moving equipment, personnel and casualties throughout the system. All of this specialized equipment became invaluable to the efficiency and quickness to render care and evacuate the injured from the wreckage.

-Accountability, the LFB has a very in depth accountability system that involves “*Point of Entry*” control on the smallest of incidents. This was very paramount in coordinating responders through the confined areas of the tunnels. Additionally, the BTP have adapted their response to include such accountability measures of there own personnel.

-Even with a strict Accountability System in place; we were informed that units and personnel (on & off duty) continued to “*Self-Deploy*” themselves leaving gaps in the city without proper coverage. Personnel have to “*Remember your day to day business*” still goes on.

-Technology was considered to be fairly consistent to ours as the delegation recognized most of the instruments used by both the Police Departments and the LFB.

-At the Technical Visit, the LFB showed us two different bags that are given to personnel who must go thru Mass Decon. The first bag is given to an individual to gather all personal effects, scissors to assist in the removal of clothing, a red paper suit (for modesty and to identify they have not been deconned, and a towel to assist in decon.

At the end of the decon line; each individual is given another bag with a lightweight white tyvek type garment (paper suit), paper booties / shoes and another towel to restore some dignity to an individual that just had to disrobe in public. The initial response unit carried about 5000 each of these bags with another 40,000 in a warehouse nearby.

-Incident Command / Management: The LFB utilizes a three tier system for managing an incident. Utilizing *Gold* Level Command Officers, *Silver* Level Command Officers and *Bronze* Level Command Officers. Each level of command is respectfully similar to our Unified Command Structure. The major difference is that none of the different services (Police, Fire, and EMS) ever share the same room.

-Some of the LFB personnel are trained and qualified to operate the underground trains. This serves as an additional resource as to evacuate personnel within the tunnel system as well as move equipment in and out of long restricted tunnels.

Where Do We Go From Here

- Need to develop a regional training program to include police and public works, emergency responders, and command staff.
- Need to develop and deliver exercises across the region.
- Need to develop a cart capable of ferrying responders and equipment to the scene, as well as serious injured victims out.
- Need to develop the ability to rapidly assess packages for hazards.
- Need to implement a quickly accessible equipment cache to handle mass casualty events resulting from terrorist events.
- Mass decontamination-Determine NCR strategy and acquire equipment and provide training.
- Develop regional protocols and strategy for long term breathing apparatus
- Ensure a robust and redundant communication system.